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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,845	11/13/2001	Kuan-Chang Peng	MR3003-7	6176

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EXAMINER	
MCCAMEY, ANN M	
ART UNIT	PAPER NUMBER
2833	

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/986,845	PENG, KUAN-CHANG	
	Examiner	Art Unit	
	Ann M McCamey	2833	

-- The MAILING DATE of this communication app ars on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities: "the surface" lacks antecedent basis. Claim 12 is objected to because of the following informalities: "high thermal conductivity" is a relative term and thus cannot be given weight without a reference point or specific values; "such as metals" is indefinite, since it is unclear whether a metal is being claimed. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, 10-18, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagayama et al. (US 5,952,037).

Regarding claim 1, Nagayama et al. disclose an organic electro-luminescence (EL) device (Fig. 2), comprising:

a substrate 2;

a plurality of first electrodes formed on the surface of said substrate 3;

a plurality of divisions of organic layer 8, formed on said first electrodes and being superimposed perpendicularly upon said first electrodes, said organic layer comprising at least one organic EL layer;

a plurality of second electrodes 8, formed on said organic layer;

a plurality of bottom insulating pads (above 7, Fig. 3), each disposed between said divisions of said organic layer; and

a plurality of heat sinks 14, each disposed on one of said bottom insulating pads.

Without more specific structural limitations, (i.e., type of material) any feature can be considered a "heat sink."

Regarding claim 2, Nagayama et al. disclose the thickness of said bottom insulating pads being larger than that of said organic layer.

Regarding claim 3, Nagayama et al. disclose a protective layer 10 provided on the surface of said device.

Regarding claim 5, Nagayama et al. disclose a insulating stripe being formed on each of said heat sinks, wherein the width of said insulating stripe is larger than said heat sink and thus overhanging portions are formed.

Regarding claim 6, Nagayama et al. disclose the width of said organic layer is larger than the distance between two of said overhanging portions.

Regarding claim 7, Nagayama et al. disclose the width of said second electrodes being smaller than that of said organic layer.

Regarding claim 10, Nagayama et al. disclose said the heat sinks are formed in a trapezoid shape, with a wider top side and a narrower bottom side (Fig. 23).

Regarding claim 11, Nagayama et al. disclose said organic layer is one of a red light emitting organic layer, a green light emitting organic layer, a blue light emitting organic layer and their combination (Column 6, Line 13).

Regarding claim 12, Nagayama et al. disclose said heat sinks being formed by using a material with high thermal conductivity.

Regarding claim 13, Nagayama et al. disclose the width of said bottom insulating pads being larger than that of said heat sinks.

Regarding claim 14, Nagayama et al. disclose the width of said organic layer and said second electrode being equal to the distance between two of said bottom insulating pads.

Regarding claim 15, Nagayama et al. disclose the thickness of said organic layer being smaller than that of said bottom insulating pads.

Regarding claim 16, Nagayama et al. disclose said bottom insulating pads comprising an insulating material with moisture absorption function.

Regarding claim 17, Nagayama et al. disclose the width of said bottom insulating pads being larger than that of bottom side of said heat sinks.

Regarding claim 18, Nagayama et al. disclose the width of said organic layer and said second electrode being equal to the distance between two of said bottom insulating pads.

Regarding claim 20, Nagayama et al. disclose an organic EL device, comprising:

a substrate 2;

a plurality of first electrodes 3 formed on the surface of said substrate;

a plurality of divisions of organic layer 8, formed on said first electrodes and being superimposed perpendicularly upon said first electrodes, said organic layer comprising at least one organic EL layer;

a plurality of second electrodes 8, formed on said organic layer;

a plurality of bottom insulating pads (above 7, Fig. 3), each disposed between said divisions of said organic layer;

a plurality of moisture absorbers, each disposed on one of said bottom insulating pads; and

a protective case 10, for sealing said device.

Regarding claim 21, Nagayama et al. disclose said moisture absorbers are formed in a trapezoid shape, with a wider top side and a narrower bottom side (Fig. 23).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 8, 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagayama et al. in view of Abe et al. (US 6,441,551).

Regarding claims 4, 8 and 19, Nagayama et al. disclose the invention substantially as claimed but do not disclose the insulating pads comprising an insulating material with a moisture absorption function. Abe et al. teach including moisture

absorbents in the insulating layer of an EL device (Column 7, Lines 26-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include moisture absorbents with the insulating layer to decrease moisture in the device increasing the life of the device.

Regarding claim 9, Nagayama et al. disclose there being space formed between said organic layer, said moisture absorber, said second electrode and said protective layer.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamana (US 6,249,084) also teaches an insulator with moisture absorbers in an EL device; Sakaguchi et al. (US 5,990,615) teach an EL device with a heat sink.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann M McCamey whose telephone number is (703) 305-3422. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

AMM
April 4, 2003

RENEE LUEBKE
PRIMARY EXAMINER